

Contributions to a Monograph of the *Aphroditacea*.

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(Continued from vol. viii. p. 202.)

[Read Nov. 16, 1865.]

Family IV. ACOETIDÆ.

(Acoëtea, *Kinberg, Öfversigt, Kongl. Vetenskaps-Akademiens Förhandlingar*, 1855, p. 386.)

Body elongate; no facial tubercle; tentacle short, arising from the middle of the anterior portion of cephalic lobe; bases of antennæ concealed under the peduncles of the eyes; eyes 2, peduncled; pharynx exsertile, papillose on anterior margin; jaws large, horny, armed with two central and many lateral teeth; palpi long, strong, and smooth. Elytra 39-93 pairs, placed upon the 2nd, 4th, 5th, 7th, and all alternate odd segments onwards to the extremity of the body; segments not bearing elytra provided with dorsal cirri.

Genus I. ACOETES.

Acoëtes, *Audouin & Edwards, Hist. Nat. du Littoral de la France*, ii. p. 92.

Elytra flat, covering the whole back, and arranged imbricately from behind forwards, or in the reverse way to that of the *Aphroditidæ* and *Polynoïdæ*, the posterior portion of each elytron being covered by the anterior of the one behind it; peduncles of eyes about the same length as the peduncle of tentacle.

Sp. 1. ACOETES PLEEI, *Audouin & Edwards, l. c.* p. 101, pl. 2A. figs. 7-14.

Polyodontes Pleei, *Grube, Archiv für Naturg.* 1855, p. 90.

Hab. Martinique, West Indies, *M. Pleei*.

Sp. 2. ACOETES LUPINA, *Stimpson, Proceed. Boston Soc.* v. p. 116.

Hab. South Carolina, *Stimpson*.

Genus II. EUPOMPE, *Kinberg, l. c.* p. 386.

Cephalic lobe tripartite on anterior margin; peduncles of eyes a little shorter than peduncle of tentacle, and occupying the anterior portion of cephalic lobe; elytra 93 pairs, flat, thin, and inversely imbricated, or from behind forwards, leaving the anterior and middle portion of the back naked, but covering the posterior part.

Sp. 1. EUPOMPE GRUBEI, *Kinberg, l. c.* p. 387, and in *Fregatten Eugenie's Resa*, p. 24, tab. 7. figs. 35A-35H, tab. 10. fig. 59.

Hab. Near Guayaquil, *Kinberg*.

Genus III. PANTHALIS, *Kinberg, l. c. p. 386.*

Cephalic lobe tripartite on anterior margin; central teeth of jaws contiguous; peduncles of eyes of the same length as that of tentacle, and occupying the anterior portion of cephalic lobe. Elytra 39 pairs; the anterior flat, covering the back, inversely imbricated; the remainder campanulate, imbricated posteriorly, and leaving the middle of the back uncovered.

Sp. 1. PANTHALIS OERSTEDI, *Kinberg, l. c. p. 387*, and in *Fregatten Eugenies Resa*, p. 25, tab. 6. figs. 34, 34A-34H, tab. 10. fig. 60.
Hab. West coast of Sweden, *Kinberg*.

Sp. 2. PANTHALIS GRACILIS, *Kinberg, Fregatten Eugenies Resa*, p. 26, tab. 10. fig. 61.
Hab. Near Rio Janeiro, *Kinberg*.

Genus IV. POLYODONTES.

(*Renieri*) *Blainville, art. Vers, Dict. Sc. Nat. tom. lvii. p. 461.*

Elytra very small, not covering the back, alternating with dorsal cirri; jaws large and horny; no antennæ; no tentacle; palpi long; eyes 2, peduncled.

Sp. 1. POLYODONTES MAXILLOSUS.

Phyllodoce maxillosa, Ranzani, Mem. Stor. Nat. Bologna, 1820, p. 1, tab. 1. figs. 2-9.

Hab. Adriatic Sea, *Ranzani*.

Sp. 2. POLYODONTES GULO, *Rüppell; Grube, Archiv für Naturg. 1855, p. 90.*

Hab. Red Sea, *Rüppell*.

Family V. SIGALIONIDÆ.

(*Sigalionina, Kinberg, l. c. p. 387.*)

Body long, narrow; no facial tubercle; cephalic lobe rounded. Feet, in anterior segments, provided with either an elytron or a dorsal cirrus; in posterior segments, feet provided with both elytra and dorsal cirri.

Genus I. SIGALION.

Sigalion, Audouin & Edwards, Hist. Nat. du Litt. de la France, ii. p. 3 (not Kinberg).

Sthenelais, Kinberg, l. c. p. 387.

Cephalic lobe rounded, having on its mesial portion, which is

indented, a strong tentacle, at the base of which are affixed the antennæ; eyes 2 or 4 (?), sometimes so indistinct as not to be easily seen. Setæ of feet of three kinds—setaceous and serrulate, subulate and serrulate, jointed and bidentate. Elytra covering the back, furnished with simple papillæ.

Kinberg, in taking the *Sigalion Mathildæ* of Audouin and Edwards as the type of his restricted genus *Sigalion*, was, unwittingly perhaps, led into an error, from that species having been originally described by these authors from an imperfect specimen, in which the tentacle was destroyed.

In the illustrations to the 'Règne Animal,' édition Crochard, M. Edwards rectifies this mistake, having, since the first publication of the species, met with other and more perfect specimens: in these the tentacle was present.

It is only right and fair, as Ehlers had already pointed out, to restore the name *Sigalion* to the typical species as correctly described and figured by M. Edwards in the 'Règne Animal.' I therefore propose to retain the name *Sigalion* for the species which Kinberg has placed in his genus *Sthenelais*, and to institute a new genus to receive such as he referred to his restricted genus *Sigalion*.

Sp. 1. SIGALION MATHILDÆ, *Audouin & Edwards, Hist. Nat. du Littoral de la France*, ii. p. 105, tab. 2. figs. 1-10; *Règne Animal*, éd. Crochard, tab. 20. figs. 1, 1a-1c.

Hab. Coast of France, *Edwards*.

Sp. 2. SIGALION BOA, *Johnston, Loudon's Mag. Nat. Hist.* vi. p. 322, fig. 42 (1833).

Sigalion Idunæ, *Rathke, Act. Nov. Acad. Nat. Cur.* xx. pt. 1. p. 150, tab. 9. figs. 1-8 (1843).

Hab. Coast of Britain, *Johnston*; Coast of Norway, *Rathke (Mus. Brit.)*.

Sp. 3. SIGALION HELENÆ.

Sthenelais Helenæ, *Kinberg, l. c.* p. 387, and in *Fregatten Eugenies Resa*, p. 27, tab. 8. figs. 36, 36A-36H.

Hab. Valparaiso, *Kinberg*.

Sp. 4. SIGALION ARTICULATUM.

Sthenelais articulata, *Kinberg, l. c.* p. 387, and in *Fregatten Eugenies Resa*, p. 28, tab. 8. figs. 38, 38A-38H, tab. 10. fig. 62.

Hab. Rio de Janeiro, *Kinberg*.

Sp. 5. SIGALION BLANCHARDI.

Sthenelais Blanchardi, *Kinberg, Fregatten Eugenes Resa*, p. 28, tab. 8. figs. 37A-37H.

Hab. Valparaiso, *Kinberg*.

Sp. 6. SIGALION OCULATUM, *Peters, Monatsbericht Akad. Wissenschaft. Berlin*, 1854, p. 610; *Arch. für Naturg.* 1855, p. 38.

Sthenelais oculata, *Kinberg, Fregatten Eugenes Resa*, p. 29, tab. 8. figs. 39, 39B-39H.

Hab. Mossambique, *Peters*.

Sp. 7. SIGALION LÆVE.

Sthenelais lævis, *Kinberg, Fregatten Eugenes Resa*, p. 29, tab. 8. figs. 40, 40B-40G.

Hab. Island of Eimeo, Pacific, *Kinberg*.

Sp. 8. SIGALION LIMICOLA, *Ehlers, Borstenwürmer*, i. p. 120, tab. 4. figs. 4-7, tab. 5. figs. 1-10.

Hab. Quarnero, Adriatic, *Ehlers*.

Sp. 9. SIGALION ARCTUM?

Aphrodita arcta, *Dalyell, Powers of Creat.* ii. p. 170, tab. 24. fig. 14.

Hab. Coast of Scotland, *Dalyell*.

Sp. 10. ? SIGALION PERGAMENTACEUM, *Grube, Annulata Oerstediana*, p. 24.

Hab. Santa Cruz, West Indies, *Oersted*.

Grube refers this species, with doubt, to the genus *Sigalion*.

Sp. 11. SIGALION BLAINVILLII, *Costa, Ann. Sc. Nat.* 2nd series, xvi. p. 269, tab. 11. figs. 1, 1a-1d.

Hab. Gulf of Naples, *Costa*.

Genus II. THALENESSA.

Sigalion, *Kinberg*, non *Aud. & Edwards*.

Cephalic lobe broad anteriorly; no tentacle; antennæ two, very short, placed on the anterior margin of the cephalic lobe; eyes 2, distant; compound setæ bidentate; simple setæ serrate; elytra covering the back, with ramose fimbriæ on the margin.

Sp. 1. THALENESSA EDWARDSI.

Sigalion Edwardsi, *Kinberg, l. c.* p. 387, and in *Fregatt. Eugen. Resa*, p. 30, tab. 9. figs. 41, 41A-41H, t. 10. f. 63.

Hab. Sea off the mouth of the River Plate, South America, *Kinberg*.

Genus III. LEANIRA, *Kinberg, l. c. p. 388.*

Cephalic lobe rounded, receiving the tentacle in a mesial groove; no antennæ; palpi very long; eyes 2, placed near the tentacle; superior setæ closely serrulate; inferior setæ slender, compound, pectinato-canaliculate at the apex; anterior elytra not altogether covering the back; no papillæ.

Sp. 1. LEANIRA QUATREFAGESI, *Kinberg, l. c. p. 388*, and in *Fregatt. Eugen. Resa*, p. 30, tab. 9. figs. 42, 42 A-42 H, tab. 10. fig. 64.

Hab. Sea off the mouth of the River Plate, South America, *Kinberg.*

Sp. 2. LEANIRA STELLIFERA.

Nereis stellifera, *Müller, Zool. Dan.* tab. 62. figs. 1-3.

Sigalion stelliferum, *Sars, Förhand. Vidensk. Selsk. Christiania*, 1861, p. 51.

Sigalion tetragonum, *Oersted, Fortegnelse*, p. 7, tab. 2.

Hab. Coasts of Norway and Sweden, *Müller, Sars, and Oersted.*

Genus IV. PSAMMOLYCE, *Kinberg, l. c. p. 388.*

Cephalic lobe anteriorly produced, and forming the thick base of a long tentacle; antennæ none; eyes 4? (2?); superior setæ simple, very slender, serrate; inferior setæ strong, bidentate; elytra not covering the middle of the back, with long fimbriæ on their margin.

Sp. 1. PSAMMOLYCE HERMINIÆ.

Sigalion Herminia, *Aud. & Edw. Littoral de la France*, ii. p. 107, tab. 1 A. figs. 1-6.

Hab. Rochelle, *M. d'Orbigny.*

Sp. 2. PSAMMOLYCE PETERSI, *Kinberg, l. c. p. 388*, and in *Fregatt.*

Eugen. Resa, p. 31, tab. 9. figs. 43, 43 A-43 H.

Hab. Mossambique, *G. v. Düben.*

Sp. 3. PSAMMOLYCE FLAVA, *Kinberg, l. c. p. 388*, and in *Fregatt.*

Eugen. Resa, p. 31, tab. 9. figs. 44, 44 A-44 H.

Hab. Rio Janeiro, *Kinberg.*

Genus V. CONCONIA, *Schmarda, Neue wirbell. Thiere*, ii. p. 150.

Segments of body numerous; elytra on 2nd, 4th, 5th, 7th, and all alternate segments up to the 27th, and then on every succeeding segment to the end of the body; dorsal cirri on all the segments. Feet biramous; setæ of upper branch denticulate;

those of inferior branch of two kinds: 1st, simple and strobili-form; 2nd, compound and bidentate. Jaws 4.

Sp. 1. CONCONIA CÆRULEA, *Schmarda, l. c.* tab. 37. fig. 319.

Hab. Coast of Chili, *Schmarda*.

Family VI. PHOLOIDIDÆ.

(Pholoidea, *Kinberg, Fregatt. Eugen. Resa*, p. 1.)

Elytra on all the alternate segments; no dorsal cirri, either on the segments possessing elytra, or on those in which elytra are wanting.

Genus I. PHOLOË, *Johnston, Ann. Nat. Hist.* ii. 428.

Body linear, oblong; proboscis with four horny jaws, the orifice plain; eyes 2; branches of feet connate; bristles of superior branch capillary, those of inferior branch falcate.

Sp. 1. PHOLOË INORNATA, *Johnston, Ann. Nat. Hist.* ii. p. 437, tab. 23. figs. 1-5.

Hab. Cumbrae, Firth of Clyde, *D. Robertson*; Berwick Bay, *Johnston (Mus. Brit.)*.

Sp. 2. PHOLOË EXIMIA, *Dyster, MS.* in *Johnston's Catalogue of Non-parasitic Worms in British Museum Collection*, p. 122.

Hab. Tenby, *Dyster*.

Sp. 3. PHOLOË BALTICA, *Oersted, Conspect. Annul. Dan.* fascic. i. p. 14, tab. 1. fig. 21, tab. 2. figs. 34-36, 40.

Hab. Coast of Denmark, *Oersted*.

Sp. 4. ? PHOLOË MINUTA, *Oersted, Grœnl. Ann. Dorsib.* p. 17, tab. 1. figs. 3, 4, 8, 9, 16.

Aphrodita minuta, Fabricius, Faun. Grœnland. p. 314.

Hab. Godthaab, coast of Greenland, *Oersted*.

Sp. 5. PHOLOË TECTA, *Stimpson, Invertebrata of Grand Manan*, p. 36.

Hab. Grand Manan, in 4 forms, *Stimpson*.

Genus II. GASTROLEPIDIA, *Schmarda, Neue wirbell. Th.* ii. p. 158.

Elytra and dorsal cirri on alternate segments; elytra on 2nd, 4th, 5th, 7th, and all alternate segments up to the 53rd; ventral surface covered on all the segments with elytriform lamellæ; feet biramous.

Sp. 1. GASTROLEPIDIA CLAVIGERA, *Schmarda*, l. c. p. 159, tab. 37.
fig. 315.

Hab. Ceylon, *Schmarda*.

Family VII. PALMYRIDÆ.

(Palmyracea, *Kinberg*, *Fregatt. Eugen. Resa*, p. 1.)

No elytra; fans of flat bristles on all the segments; segments having cirri and tubercles alternately along the back.

Genus I. PALMYRA, *Savigny*, *Système des Annélides*, p. 16.

Body oblong, depressed; proboscis without tentacles on edge; jaws semicartilaginous; eyes 2; feet with branches separate.

Sp. 1. PALMYRA AURIFERA, *Savigny*, l. c. p. 17.

Hab. Isle of France, *Cuvier*; Red Sea, *Savigny*.

Sp. 2. PALMYRA ELONGATA, *Grube*, *Annulat. Oersted.* p. 25.

Hab. Santa Cruz, West Indies, *Oersted*.

Sp. 3. PALMYRA DEBILIS, *Grube*, *Archiv für Naturg.* 1855, p. 90.

Hab. Villa Franca, Mediterranean, *Grube*.

Since this paper on the Aphroditacea was commenced (see vol. viii. of this Journal, p. 172) I have, through the kindness of M. Malmgren, now of Helsingfors, been made acquainted with an excellent paper of his on the Annelides of the North Sea, "Nordiska Hafs-Annulater," published in the 'Öfversigt af K. Vet. Akad. Förhandlingar' for 1865. I regret not having seen this paper before these "Contributions to a Monograph of the Aphroditacea" were first commenced in this Journal. In his paper M. Malmgren has instituted no fewer than ten new genera belonging to the family Polynoidæ. Of these I can only here mention the names, with a reference to the species enumerated in my "Contributions."

I. NYCHIA. To this genus he refers nos. 2 & 3 of the genus *Harmothoë*, pp. 194, 195, *H. assimilis* and *H. scabra*. These two species he regards as only one, and as being synonymous with the *Aphrodita cirrosa* of Pallas.

II. EUNOË. To this genus he refers the *Lepidonota scabra* of Oersted, which, upon very good grounds, he considers distinct from the *Aphrodita scabra* of Fabricius.

III. LAGISCA. To this genus he refers no. 11 of the genus *Harmothoë*, p. 195, the *Polynoë rarispina* of Sars.

IV. EVARNE. To this genus he refers no. 3 of the genus *Antinoë*, p. 192, the *Polynoë impar* of Johnson.

V. LANILLA. To this genus he refers no. 1 of the genus *Antinoë*, p. 192, the *Polynoë lævis* of MM. Audouin & Edwards.

VI. MELÆNIS, and VII. EUCRANTIA. Of these two genera no species had been described previously.

VIII. ALENTIA. To this genus Malmgren refers no 9 of the genus *Halosydna*, p. 187, the *Polynoë gelatinosa* of Sars.

IX. ENIPO, and X. NEMIDIA. These genera approach the restricted genus *Polynoë*; but no species had previously been described.

Some Account of a newly discovered British Fish of the Family *Gadidæ* and the genus *Couchia*. By JONATHAN COUCH, F.L.S., &c.

[Read Nov. 16, 1865.]

THE genus *Couchia* was formed by Mr. W. Thompson, and has been adopted by Dr. Günther, as separated from that of *Motella* or the Rocklings by the more moderately lengthened body of the species, which is also compressed, and by the silvery and brilliant appearance of the sides. In fact, in their general proportions the fishes of this genus are as different from the Rocklings as, among their kindred the other *Gadidæ*, the Pollack and Whiting are from the Ling; while their manners also, so far as they are known, are as different as their shape. And yet, in some of the more prominent particulars of their organization, there exists a similarity between the *Motellæ* and *Couchiæ*, which is the more remarkable as it consists of a relative gradation in the species of each, which is only to be traced throughout by the discovery of one, of which a notice is now presented to the Linnean Society.

As there is a species of *Motella* which is characterized by the presence of four prominent barbs placed in pairs on the front of the head, with a barb dependent also from the lower jaw, so we find in the best-known, and probably most widely spread, of the genus *Couchia*, the Mackerel Midge (*C. glauca*), a similar conformation, together with a characteristic ciliated membrane situated in a chink in advance of the dorsal fin; which membrane certainly is not itself a fin, but an organ of sensibility which is in its most lively motion when the proper fins are at rest. But long before